

cannot be considered as exceptional, as the species occurs occasionally at considerable distances inland and at high elevations elsewhere in South America; but it appears to be the northernmost Andean record. It has been recorded from the Andes of Peru and Bolivia (Plenge 1974, *Condor* 76: 326–330; Hughes 1977, *Biotropica* 9: 52; Remsen & Ridgely 1980, *Condor* 82: 69–75; Harris 1980, *Publ. Mus. Hist. Nat. "Javier Prado"*, *Zool., Ser. A* 27: 1–14, Fjeldså 1983, *Steenstrupia* 8: 285–298; Fjeldså 1988, *Bo. Lima* 58: 61–68; Hughes 1988), in trans-



Figure 1. Laughing Gull *Larus atricilla* in second-winter plumage, Lago de Colta (Santiago de Quito), Prov. Chimborazo, Ecuador, elev. c. 3250 m, 20 November 1991.

Andean Peru (Schulenberg 1980, *Gerfaut* 70: 403–404), in the Central Valley of Chile near Santiago (Carlos G. Guerra Correa pers. comm.), and in Prov. Córdoba in central Argentina (Nores & Yzurieta 1979, *Hornero* 12: 45–52; Olrog 1979, *Opera Lilloana* 27: 1–324; Nores *et al.* 1983, *Bo. Acad. Nac. Cienc., Córdoba* 56: I–IX, 1–114), sometimes in flocks of hundreds or thousands. Elsewhere, Franklin's Gull has often shown its capacity as an inland wanderer, which is not surprising for an exclusively inland breeder. Thus in Europe there are inland records of vagrant individuals from Spain, France, Britain, Belgium, The Netherlands, Germany and Sweden (Hoogendoorn & Steinhaus 1990).

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#### WHERE ARE THE LIMITS OF THE WESTERN PALEARCTIC?

The Palearctic is a natural continuum. Nonetheless, the term 'Western Palearctic' is in common usage (e.g. in popular ornithological journals) and it is therefore helpful to consider the most appropriate definition of this sub-region. The editorial statement in *Birds of the Western Palearctic* (Vol. 1), that the definition of the eastern limits of the western part of the Palearctic is "largely arbitrary", has received little subsequent attention. In the southeast, renewed examination of the most appropriate 'limits' in Iran and the Arabian peninsula is, therefore, worthwhile.

While the need for greater recognition of the distinctiveness of the Saharo-Sindian zone avifauna (Harrison 1986, *Atlas of the Birds of the*

*Western Palearctic*) needs repeating, treatment of the Arabian as well as the Saharan deserts as essentially western offers a less confusing approach to the subdivision of the Palearctic on a grand scale than the more restrictive area treated in *BWP*. Given the essentially Saharo-Sindian composition and lack of eastern elements within the breeding landbird avifauna of arid central Arabia, there are apparently no reasons for its exclusion from a 'western' ambit.

An extremely small proportion of the Arabian peninsula which supports an avifauna dominated by Afrotropical (previously termed Ethiopian) elements is a conspicuous exception. This is restricted to two areas: the western scarps and fringe of the montane southwest, and the slopes immediately adjacent to the central south coast, in Dhofar. Plant communities in these areas are monsoon-sustained ecological islands surrounded by radically different environments. They support bird communities which apparently represent relics of an ancient, more extensive Afrotropical/Paleotropical avifauna. The extent and limits of these areas may be clarified in order to define what areas of Arabia *cannot* properly be treated as western Palearctic. The significance of the smaller number of Oriental/eastern breeding species in (mainly coastal) southeastern Arabia is not considered here.

In Yemen, the Afrotropical element is dominant within the breeding avifauna as far as the upper limits of the western slopes, extends more weakly across the central plateau and to a much diminished extent beyond, through the eastern flanks of the highlands. It is too weakly expressed along the eastern fringe to justify the frequent presentation of the entire southwestern tip of Arabia as wholly Afrotropical. Equally, treating such an extensive area as 'transitional', another past approach, does not properly reflect local differences in bird distributions. If a transition zone has to be defined, then this would be best restricted to the highland plateau only. Thus, the poorly demarcated eastern and more clearly defined western fringes of the plateau represent restrictively and expansively defined limits to Saharo-Sindian/western Palearctic influence respectively. In Dhofar, Afrotropical species are almost exclusively confined to the thin strip of drought deciduous woodland on (mainly) coastal or high slopes.

In Iran, the most appropriate limits to strong western influence are defined by a line from the northern Gulf coast, slightly west of the Straits of Hormuz, through a gap between the southwesternmost flanks of the Zagros and the uplands of the Makran coast/Iranian Baluchistan, northwestward along the eastern flank of the Zagros range, turning eastward along the southern flank of the Elburz range, at the lowest altitude at which temperate taxa predominate, as far east as the Kuh-e Hazar Masjed and thence, westward, along the lower northern flanks of the Elburz range (west of Ashkabad in Turkmenistan) to the Caspian coast.

More detailed discussion of these conclusions is in preparation.

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